

# EXHIBIT 6



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October 12, 2022

Ms. Stephanie Pollack, Acting Administrator  
Federal Highway Administration, U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Washington, DC 20590

Re: Docket No. FHWA-2021-0004

Dear Ms. Pollack,

I am writing to provide the Texas Department of Transportation's (TxDOT's) comments on the above-referenced notice of proposed rulemaking (NPRM) that was published by the Federal Highway Administration (FHWA) in the Federal Register (FR) on July 15, 2022 (Docket No. FHWA-2021-0004). In the NPRM, FHWA proposes to amend its national performance management measures at 23 CFR Part 490 to require State departments of transportation (State DOTs) and metropolitan planning organizations (MPOs) to (1) establish declining targets for reducing tailpipe carbon dioxide (CO<sub>2</sub>) emissions on the National Highway System (NHS), and (2) submit reports to FHWA on tailpipe CO<sub>2</sub> emissions on both the NHS and all public roads.

TxDOT does not oppose efforts designed to reduce greenhouse gases (GHG), and in fact has several activities, programs, and funding initiatives that have the effect of reducing GHG.<sup>1</sup> However, TxDOT has multiple concerns with the NPRM, as outlined in the following pages.

TxDOT appreciates the opportunity to comment. If you have any questions, please call me at (512) 305-9515 or you or your staff may contact Melanie Alvord, Director, Federal Affairs Section at [Melanie.Alvord@txdot.gov](mailto:Melanie.Alvord@txdot.gov) or at (512) 944-5135.

Sincerely,

Marc D. Williams, P.E.  
Executive Director

cc: Lance W. Simmons, P.E., Chief Engineer, TxDOT  
Brian R. Barth, P.E., Deputy Executive Director for Program Delivery, TxDOT  
Doug Booher, Environmental Affairs Division Director, TxDOT

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<sup>1</sup> Examples include TxDOT's Recycling and Clean Construction and Operation Program; provision of approximately \$232 million per year in nonattainment areas for federally funded Congestion Mitigation Air Quality (CMAQ) improvement projects (e.g., bicycle and pedestrian facilities); TxDOT planning and designing for bicycles and pedestrian funding programs, including approximately \$172 million per year in transportation alternatives projects and \$20 million per year in pedestrian mobility, accessibility, and safety projects; greening the TxDOT fleet with electric vehicles and alternative-fueled vehicles; and TxDOT's Clean Air Plan, which encourages over 11,000 employees statewide to reduce vehicle emissions.

First, Congress has not directed or authorized FHWA to establish tailpipe CO<sub>2</sub> performance measures for the NHS. While there are certain measures that State DOTs and MPOs are taking that have the effect of mitigating the amount of CO<sub>2</sub> emissions associated with transportation (such as promoting alternatives to single-occupancy vehicle travel, such as rail, transit, high-occupancy vehicle lanes, etc.), State DOTs and MPOs simply have no legal authority over the amount of GHGs emitted from the tailpipes of vehicles traveling on the NHS on a per-vehicle basis. Therefore, the ability of State DOTs and MPOs to achieve the declining targets for reducing tailpipe CO<sub>2</sub> emissions on the NHS is severely limited. Any strategy that would involve deliberately ratcheting-down the number of vehicles that can safely and efficiently travel via the NHS, or rationing the use of highways by the public, would run contrary to the State DOTs' legislative mandates to facilitate transportation and reduce congestion, and could have substantial negative effects on the economy and other aspects of public life. Of particular concern is the FHWA's stated expectation that State DOTs' and MPOs' declining targets for CO<sub>2</sub> emissions align with the current Administration's targets of an overall 50-52% reduction in emissions from 2005 levels by 2030 and net-zero emissions economy-wide by 2050. Such reductions are not achievable without diverting from the intent of the NHS.

Regarding timing, the proposed rule would require State DOTs to include targets for the proposed CO<sub>2</sub> performance measure in their State Biennial Performance Report due to FHWA by October 1, 2022; however, the comment period on the NPRM closes after this date, on October 13, 2022. While the NPRM recognizes that the date for States to report State DOT initial targets for the proposed CO<sub>2</sub> performance measures may need to be adjusted and requests comment on what the due date should be in the event a final rule is not effective by October 1, 2022, TxDOT is concerned that the failure of FHWA to recognize that the deadline for State reporting falls nearly two weeks before the comment period closes on the proposed NPRM is indicative of FHWA's intent to finalize the action proposed in the NPRM without fully considering public comments.

In the comments below, TxDOT has elaborated on these and other concerns with the proposed rulemaking. TxDOT appreciates your consideration of its comments.

**Comment 1: Congress has not, in fact, directed or authorized FHWA to establish a CO<sub>2</sub> performance measure for the NHS; therefore, the proposed rule constitutes impermissible overreach by an administrative agency.**

FHWA cites 23 USC §150(c) as the source of its authority to establish CO<sub>2</sub> performance measures.<sup>2</sup> Section 150(c) requires the U.S. Department of Transportation (USDOT) to establish performance measures and standards for four specific programs: **(1)** the national highway performance program, **(2)** the highway safety improvement program, **(3)** the congestion mitigation and air quality program, and **(4)** national freight movement. In MAP-21, Congress specifically set boundaries on USDOT's authority to establish performance measures under §150(c), stating that USDOT "shall ... limit performance measures only to those described in this subsection." 23 USC §150(c)(2)(C).

According to the NPRM, FHWA's authority to establish a CO<sub>2</sub> performance measure is embedded in the statutory description of the "national highway performance program" at 23 USC §150(c)(3). Specifically, FHWA finds its authority in the statutory requirement to establish measures for the States to assess "the performance of the Interstate System" and "the performance of the national highway system (excluding the interstate system)." 23 USC §150(c)(3)(A)(ii)(IV) & (V). These

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<sup>2</sup> 23 USC §150(c) was enacted ten years ago in 2012 as part of MAP-21.

provisions neither mention CO<sub>2</sub> emissions nor use language that would reasonably be viewed as “describing” CO<sub>2</sub> emission considerations.

Despite the absence of any explicit Congressional instruction regarding a CO<sub>2</sub> performance measure, FHWA claims its authority is implied in subsections (IV) and (V) because a *different* subsection, §150(b), “national goals,” refers to a general national goal of “environmental sustainability.” 23 USC §150(b)(6). Importantly, however, the national goal of “environmental sustainability” does not mention GHG. Further, there is a difference between a statement of general policy or “national goal,” and a statutorily required “performance measure” that is directly applicable to State DOTs’ and MPOs’ management of the NHS. In fact, Congress separated the “national goals” and “performance measures” in two different subsections, §§150(b) and (c), with neither referencing the other.

Despite the clear distinction in the statute, FHWA nevertheless attempts to link the “environmental sustainability” national goal in §150(b) to the statutorily required performance measures set forth in §150(c)(3)(A)(ii)(IV) and (V) by stating that the CO<sub>2</sub> performance measure is consistent with other parts of Title 23, notably 23 USC §119. FHWA notes that §150(c)(3)(A) (regarding the performance measures) states that establishment of the national highway performance program is “for the purpose of carrying out section 119.” Section 119 requires, among other things, that State DOTs develop “state asset management plan[s],” to “make progress toward achievement” of state targets and performance pursuant to §150(d) and supporting progress toward achieving the national goals identified in §150(b). 23 USC §119(e)(2). In essence, the NPRM appears to suggest that to know the true meaning of §150(c)(3)(A)(ii)(IV) and (V), one must look to an entirely different section, §119, and specifically the discussion of “state asset management plans” in §119 (which are different than statutorily required performance measures), and then, in accordance with §119, one must look back yet again to the national goals identified in §150(b). TxDOT does not believe that this approach to statutory interpretation was Congress’s intent.

FHWA also cites four other statutory provisions in support of its authority to take the proposed action. These provisions include: 23 USC §101(b)(3)(G) (transportation policy), §134(a)(1) (transportation planning policy), §134(c)(1) (metropolitan planning), and §§135(d)(1) and (d)(2) (statewide planning process and a performance-based approach). However, none of these provisions mention CO<sub>2</sub> emissions or further define the statutorily required performance measures at §150(c). FHWA’s piecing together bits of vague statutory language from different statutory sections and subsections is does not provide clear instruction that there should be a CO<sub>2</sub> performance measure for the NHS, and cannot overcome Congress’s unambiguous statement in 23 USC §150(c)(2)(C) that USDOT “shall ... limit performance measures only to those described in this subsection.” As noted above, Congress had the opportunity to require consideration of CO<sub>2</sub> emissions when it adopted MAP-21 or subsequent statutes and did not do so.

It is worth noting that the legislative history of MAP-21 provides no indication of Congressional intent to require analysis or consideration of GHGs in connection with performance measures. Indeed, there does not appear to have been discussion of the topic in either House or Senate deliberations relative to the same, and neither §150(c) nor MAP-21 generally direct FHWA to establish GHG measurement requirements.

On November 15, 2021, the Infrastructure Investment and Jobs Act (IIJA) was signed in to law (Public Law 117-58). The IIJA contained dozens of references to GHG emissions, and carbon emissions specifically, and created several new programs aimed at GHG emissions, such as new grant programs and programs related to carbon capture and sequestration. Subtitle D of Title I of the IIJA

primarily focused on climate change and created new §175 to Title 23, which provides for a carbon reduction program that funds a variety of measures to reduce carbon emissions. However, nothing in this section or elsewhere in the IIJA links these measures to the performance management programs referenced in §150 or §119. Given that the IIJA made extensive revisions to many of the laws governing the Federal Aid Highway Program and devoted significant focus on issues related to climate change, it is telling that Congress had a recent and specific opportunity to revise §150 to require a CO<sub>2</sub> performance measure for the NHS, but did not.

A Federal agency's inability to establish GHG regulations in the absence of a clear Congressional directive has been well-established in case law, most notably in the U.S. Supreme Court's decisions in *Utility Air Regulatory Group v. EPA* (2014) and in *West Virginia v. EPA* (2022). For further explanation of the relevant case law, please see the comments submitted on the NPRM by the Texas Attorney General's Office.

**Comment 2:** Even if Congress had called for a CO<sub>2</sub> performance measure, it would be up to the States to establish their own targets, and the proposed rule does not allow that.

While §150 specifies the types of performance measures that must be established, it leaves it up to the States to set their own targets for each of the measures. See §150(d)(1): "... each State shall set performance targets that reflect the measures identified in paragraphs (3), (4), (5), and (6) of subsection (c)." (emphasis added). The proposed rule does not allow States to set their own targets, but rather puts a restriction on the targets by requiring them to represent year-after-year reductions beginning with the very first reporting period. This not only contradicts the statutory language regarding State autonomy over their own performance targets, but also hinders States' abilities to set reasonable, achievable targets.

**Comment 3:** FHWA should clarify whether the State DOTs' and MPOs' declining targets for reducing tailpipe CO<sub>2</sub> emissions on the NHS must demonstrate 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 and net-zero on-road emissions by 2050.

The NPRM's proposed rule language requires "declining targets for reducing tailpipe CO<sub>2</sub> emissions on the NHS, that demonstrate reductions toward net-zero targets." Proposed 23 CFR §490.105(e)(10). The most natural interpretation of this language is that the targets must demonstrate declining CO<sub>2</sub> tailpipe emissions, without regard to magnitude, such that net-zero for the NHS could theoretically be reached at some point in the future, without regard to any specific deadline.

However, in the preamble language FHWA describes the rule as requiring the targets to achieve the current Administration's 2030 and 2050 goals:

"This proposed measure would require State DOTs and MPOs to establish declining targets for GHG emissions from such sources *to achieve the national goals for 2030 and 2050*. The declining targets should be consistent with national, State, and local GHG emission reduction goals for 2030 and 2050." 87 FR 42412 (emphasis added).

"Proposed new § 490.105(e)(10) would require declining targets for reductions in tailpipe CO<sub>2</sub> emissions on the NHS *that align with the 2030 and net-zero by 2050 emissions reduction targets...*" 87 FR 42413 (emphasis added).

FHWA must address this contradiction and clarify whether the declining targets required to demonstrate a 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 and net-zero on-road CO<sub>2</sub> emissions by 2050, or are the targets meant only to aid in the achievement of the current Administration's goals. Even if State DOTs and MPOs are not technically required to meet these goals, if FHWA has an expectation that they can and will meet these goals, this is problematic for a variety of reasons as explained in the comments below.

**Comment 4:** A 50-52% reduction in on-road CO<sub>2</sub> emissions from the NHS by 2030 and net-zero by 2050 is not achievable without a disruptive paradigm shift for the NHS.<sup>3</sup> Additionally, FHWA failed to consider that its intent would require actions beyond State DOT and MPO authority. By FHWA not considering the overall practicability of the proposed requirements, the proposed rulemaking is arbitrary and capricious.

FHWA explains that the Federal government has committed to achieving net-zero GHG emissions by 2050, meaning that by 2050, human activities would produce no more GHG emissions than they remove from the atmosphere. The NPRM further explains that the Federal government has established an aggressive national goal of reducing CO<sub>2</sub> emissions 50 to 52 percent below 2005 levels by 2030 in support of the Paris Agreement. TxDOT is not commenting on these national goals. TxDOT's concern, rather, is the proposed requirement that State DOTs and MPOs establish declining targets to achieve such dramatic emissions reductions from the NHS.

While the NPRM offers examples on flexible target setting, the NRPM fails to offer meaningful information on how the national GHG goals may be met specifically for the NHS. The majority of on-road tailpipe emission reductions to-date have been achieved through federal vehicle emissions and fuel controls and associated vehicle and fuel technological advancement as evidenced in FHWA's Transportation Air Quality Selected Facts and Figures webpage. According to FHWA, "A great deal of the credit for the improvements in on-road sources goes to cleaner cars and trucks, and fuels."<sup>4</sup> In addition, EPA and the Intergovernmental Panel on Climate Change (IPCC) reports indicate vehicle and fuel technological advancements will remain critical to achieving future transportation emission reductions.<sup>5,6</sup>

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<sup>3</sup> Based on the NPRM excerpts cited above in Comment 2, TxDOT assumes that FHWA intends for State DOTs' and MPOs' targets to demonstrate a 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 and net-zero on-road CO<sub>2</sub> emissions by 2050; however, as explained in Comment 2 above, we are requesting clarification on this point.

<sup>4</sup> [https://www.fhwa.dot.gov/environment/air\\_quality/publications/fact\\_book/page12.cfm](https://www.fhwa.dot.gov/environment/air_quality/publications/fact_book/page12.cfm)

<sup>5</sup> EPA, A Wedge Analysis of the U.S. Transportation Sector, EPA420-F-07-049 October 2007, <https://nepis.epa.gov/Exe/ZyNET.exe/P100230W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=2006+Thru+2010&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C06thru10%5Ctxt%5C00000005%5CP100230W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>, accessed 08/03/2022 at 7:11 a.m., CdST.

<sup>6</sup> IPCC, Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001, Summary for Policy Makers Headline Statements, Bullet C.8, page 36.



FHWA should also consider the results of an EPA report<sup>7</sup> disclosing that CO<sub>2</sub> emissions can be reduced by 8.83% (0.2%/year on average) from 2011-2050 through a bundle of strategies, some of which are within a State DOT's or MPO's control and others which are not. The bundle includes travel demand management (TDM) + land use changes + transit fare reduction + transit service improvements + parking fees + mileage fees.<sup>8</sup> For comparison, technological advancements for control of criteria pollutants and air toxics have reduced emissions in the range of 2% per pollutant/average year, but that is largely the result of direct Federal regulation of vehicles and fuels,<sup>9</sup> which is beyond the authority of State DOTs and MPOs.

Furthermore, IPCC states:

- *"Meeting climate mitigation goals would require transformative changes in the transport sector"*<sup>10</sup> and
- *"Combining mitigation with policies to shift development pathways, such as broader sectoral policies, policies that induce lifestyle or behavioral changes, financial regulation, or macroeconomic policies can overcome barriers and open up a broader range of mitigation options."*<sup>11</sup>

The "transformative" policy changes indicated by IPCC would require a combination of federal and state legislative action, private business decisions, individual vehicle purchase decisions, local government land use changes, and lifestyle changes. These simply are not within State DOT and MPO authority. And they are certainly beyond the scope of the performance of the NHS.

FHWA states that the 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 is from a base year of 2005.<sup>12</sup> For Texas, that would require a 59.3% reduction from 2019 CO<sub>2</sub> emissions, and TxDOT anticipates 2021 vehicle miles travelled (VMT) to be higher than 2019, which would increase the reduction needed.

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<sup>7</sup> EPA, Potential Changes in Emissions Due to Improvements in Travel Efficiency, March 2011, see the summary results table on page 28:  
<https://nepis.epa.gov/Exe/ZyNET.exe/P100AGMT.TXT?ZyActionD=ZyDocument&Client=EPA&Index=2011+Thru+2015&Doc=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C11thru15%5Ctxt%5C00000002%5CP100AGMT.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>, accessed on 08/01/2022.

<sup>8</sup> Ibid.

<sup>9</sup> Review and summary from any number of mobile source pollutant reduction data and histories from FHWA and/or EPA, such as Our Nation's Air at <https://gispub.epa.gov/air/trendsreport/2021/#home> or other EPA resources at <https://www.epa.gov/air-trends>.

<sup>10</sup> IPCC, Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001, Executive Summary of Chapter 10: Transport.

<sup>11</sup> IPCC, Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001, Summary for Policy Makers Headline Statements, Bullet E.2.2, page 49.

<sup>12</sup> NPRM, 87 FR 42406.

The 2030 GHG reduction goal would require a massive change for the NHS. For Texas, 1981 was the last time VMT were at the level needed to achieve the 2030 GHG reduction goal, when VMT was only 327,532,277 (all roads, including the NHS and other public roads). It is unrealistic to expect a state to undo 40+ years of VMT growth in less than eight years (by 2030). To accomplish this target, TxDOT would have to ration VMT or find funding and develop for other modes of transportation that may not lie within TxDOT's authority.

Below, TxDOT examines two approaches for achieving the 2030 GHG reduction goal, one that would rely completely on VMT reductions and another that would rely completely on electric vehicle adoption. TxDOT does not see any combination of the two that is feasible for achieving a 59.3% VMT (all roads) reduction by 2030.

#### Approach no. 1: Achieving the 2030 GHG Reduction Goal via VMT reduction

To provide a frame of reference, achieving the 2030 GHG reduction goal via a VMT (all roads) reduction would require the equivalent of five to eight consecutive, compounding COVID-type pandemic lockdowns and associated VMT reductions over the next eight years. This would be nearly equal to Texas 1981 VMT (all roads) that was 327 million when the Texas population was 14.75 million, and gross state product (GSP) was \$247 billion.<sup>13</sup> Based upon Texas's 2019 VMT (year before the pandemic lock-down), VMT (all roads) was 789 million, population was 28.26 million, and GSP was \$1.79 trillion. As stated previously, to meet the 2030 goal, it would require a 59.3% reduction in VMT from the NHS from 2019, which is unrealistic, and TxDOT is concerned that it could result in cascading adverse effects to society and the economy such as those experienced during the COVID lockdowns (e.g., loss of jobs, loss of business revenue, etc.). TxDOT is further concerned about what the effect would be to Texas if the GSP was reduced from 2019 back down to 1981 GSP consistent with that historic VMT and population (see also the discussion on freight movement below for any combination of VMT reduction and vehicle electrification). Unfortunately, FHWA did not analyze what it would take, what the impacts are and associated costs, along with policies and statutes that would be needed to achieve either the 2030 or 2050 GHG reduction goals. The time limits for commenting on this FHWA proposal prevents TxDOT from being able to conduct a detailed economic and/or societal impact analysis. To reduce VMT by 59.3% would pick winners and losers regarding who can use the NHS, with a disproportionate impact on rural Texas that will be discussed later.

According to the Texas Comptroller, if Texas were a country, the GSP would rank Texas the 9<sup>th</sup> *largest economy in the world*,<sup>14</sup> so societal and economic impacts to Texas would likely have ripple effects on both the U.S. and global economy. For comparison, the U.S. real gross domestic product (GDP) (chained to the 2012 US dollar) in 1981 was \$6.94 trillion and in 2019 was \$19.03 trillion. Therefore, in 2019, Texas was almost 1/10<sup>th</sup> of the U.S. 2019 GDP. Any limitations or rationing of freight movement or other needed business travel on the NHS in Texas have the potential to adversely impact Texas GSP and U.S. GDP and may have impacts on global

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<sup>13</sup> Gross state product (GSP) from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Analysis Division -- December 2004.

<sup>14</sup> Texas Comptroller, Economy -- Fiscal Notes at: <https://comptroller.texas.gov/economy/fiscal-notes/2022/feb/gdp.php>, accessed on 08/02/2022. The U.S. Bureau of Economic Analysis (BEA), which publishes the official U.S. GDP figure (PDF), calls it the "most comprehensive measure of U.S. economic activity" and "the most popular indicator of the nation's overall economic health."



imports/exports that FHWA should evaluate (see also later discussion on freight movement in Texas).

Per the Highway Performance Monitoring System, the data shows that in Texas and the U.S., VMT tends to grow as population increases. FHWA should document how much reduction would be needed nationwide to equal the 2030 GHG reduction goal and disclose what year of historic VMT that would reflect so FHWA and the public can understand the magnitude of FHWA's proposal.

Approach no. 2: Achieving the 2030 GHG Reduction Goal via EV or other clean vehicle technology

On-road emission reductions can also be achieved by electric vehicles or other non-fossil fuel clean vehicle technology such as hydrogen vehicles, termed hereafter as "EVs" (albeit with the associated demand on the power grid and the environmental impacts associated with EV batteries). However, State DOTs and MPOs do not have the authority to mandate usage of EVs. But even if that were a strategy available to State DOTs and MPOs for meeting the proposed performance measure, it would not be technologically possible to meet the 2030 Goal of 50-52% reductions from the NHS. Using the 2% average annual historic rates of reduction for tailpipe pollutants, it would take Texas approximately 30 years to achieve the 2030 GHG reduction goal. FHWA should evaluate what is achievable nationwide for federal tailpipe emissions and fuel controls between now and 2050. FHWA should also evaluate EV manufacturing projections for the U.S. to assess what is possible.

In the table below, TxDOT provides two base-case and several future EV scenarios to show what it would take to achieve a 59.3% reduction from 2019 VMT (all roads) for the 2030 GHG reduction goal. Scenarios include several potential future miles per gallon (MPG) options. The base-cases are in the first two rows. The information in the table is based on the following information for Texas:

- Number of EVs Registered in Texas: 138,951 (as of July 26, 2022). Projected EVs in Texas by the end of 2022: 170,000. Source Texas DMV.
- 2005 VMT (all roads) = 641,728,448. 50% VMT Reduction = 320,864,224 (2030 target)
- 2019 VMT (all roads) = 789,662,266. 59.3% VMT Reduction from 2019 to meet 2030 target of 320,864,224.
- Approximately 1.5 million new vehicles are purchased in Texas per average year.<sup>15</sup>
  - The number of new vehicles purchased tends to be less than this average during high inflation, limited vehicle manufacturing, supply chain woes, and/or recession.
  - Currently, there are not 1.5 million EVs available for purchase in Texas per year, and TxDOT cannot predict with accuracy when that many will be available for purchase for drivers on the Texas portion of the NHS. Sales will also depend on vehicle owner purchasing decisions.
- For net-zero, electrification for transit vehicles and long-haul freight vehicles is also needed.
  - Transit authorities are responsible for bus purchases, not State DOTs or MPOs.
  - Long haul freight electrification remains in its development infancy.

The first row represents a business-as-usual or the "current situation" case, with no additional EVs, except what is estimated for the fleet by year end 2022; and the second row is business-as-usual, but with increased internal combustion engine (ICE) MPG. By 2030, TxDOT anticipates it is possible for the Texas fleet ICE MPG to be in the 30s for light duty, and the range of 24.9 to 37 ICE MPG provides a wide range for baseline considerations. TxDOT anticipates the future scenarios of 44-52

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<sup>15</sup> July 27, 2022 conversation with Texas Automobile Dealers Association representative.

ICE MPG for light duty is unlikely by 2030. These scenarios are examples to provide a wide range of what it would take for EVs to provide reductions equivalent to 59.3% less VMT to achieve the 2030 GHG reduction goal. For example, Texas would only need 2.3 million EVs by 2030 if light duty ICE MPG was 45, and heavy duty was 7 ICE MPG. However, TxDOT anticipates this light duty ICE MPG is unlikely by 2030. Or, it would take 7.9 million EVs if ICE MPG remains the same as estimated for the base-year business as usual case of 24.9 and 6 ICE MPG for light and heavy duty, respectively. In this second case, it would require 5.3 of the next 8 years to have new car sales in Texas be 100% EV purchases. Based on current global EV manufacturing, that is not realistic. Also, such sales exceed the Administration's goal to have 50% of new car sales be EVs by 2030.<sup>16</sup>

**CO<sub>2</sub> Emission Reduction Scenarios to meet 2030 target of 50% reduction from 2005 levels (all roads)**

Scenario (predominant fuel type)	ICE MPG Light Duty	ICE MPG Heavy Duty	Number of Zero Emission Light Duty Vehicles by 2030	Annual CO <sub>2</sub> (million metric tons) 2030	Annual CO <sub>2</sub> (million metric tons) 2050
Gasoline and Diesel	24.9	6	173,685	178.8	236.0
Gasoline and Diesel	37	6.5	173,685	134.9	178.0
Plug-In Hybrid	52	8.5	173,685	69.1	91.1
Battery Electric Vehicle (BEV)	24.9	6	7,908,437	70.2	0
Plug-In Hybrid/BEV	45	7	2,339,416	65.6	51.3
High MPG/BEV	44	8	4,659,841	69.9	-0.9

Prepared by TPP-Data Management August 1, 2022. Estimated diesel consumption is based on avg. fuel efficiency for trucks of 5.8 MPG (2015-2016) / 5.9 MPG (2017) / 6.0 MPG (2018; 2020) / 6.1 MPG (2019). (Source: U.S. Dept. of Energy). Estimated gasoline consumption is based on avg. fuel efficiency for light duty vehicles of 22.0 MPG (2015-2018) / 22.3 MPG (2019) / 22.2 MPG (2020). (Source: U.S. Dept. of Transportation). Estimated CO<sub>2</sub> emissions for trucks are based upon an estimated 3.862 (2015-2017) / 3.733 (2018) / 3.67919 (2019) / 3.74051 (2020) pounds of CO<sub>2</sub> emitted per VMT. (Source: U.S. Environmental Protection Agency). Estimated CO<sub>2</sub> emissions for light duty vehicles are based upon an estimated 0.9061 (2015-2016) / 0.890668 (2017-2018) / 0.87859 (2019) / 0.88254 (2020) pounds of CO<sub>2</sub> emitted per VMT. (Source: U.S. Environmental Protection Agency). Note: EPA and NHTSA rules require new light duty vehicles to be 49 MPG for model year 2026, but that is different from the overall fleet operating on the Texas transportation system that has multiple year models.

For any combination of EV and VMT reductions for Texas, TxDOT is concerned that:

- It would likely require additional federal and state legislative action and local government action far beyond the scope of State DOTs' and MPOs' management of the NHS.
- A 59.3% VMT reduction in 8 years for Texas could have unintended adverse impacts to society and the economy that FHWA has neither evaluated nor considered.
- It is beyond the authority of State DOTs and MPOs to mandate the needed VMT reductions.
- It would require reductions in on-road freight transport and transition to other modes like rail or new technologies such as drone delivery, which cannot be accomplished on the scale needed to meet the 2030 goal.

<sup>16</sup> Executive Order on Strengthening American Leadership in Clean Cars and Trucks, August 5, 2021. E.O. 14037, 86 FR 43583.

- Annually Texas water freight carriers move 569 million tons of freight worth \$362 billion. That tonnage is 46% Foreign Export, 10% Domestic Outbound, 4% Domestic Inbound, and 13% Domestic Intrastate.<sup>17</sup>
- Annually, Texas air freight carriers move 2.1 million tons of freight and mail worth \$225 billion. That tonnage is 67% Domestic, 19% Import, and 14% Export.<sup>18</sup>
- Annually freight rail operators move 325 million tons of freight worth \$405 billion to, from, and within Texas. Another 132 million tons of freight worth \$369 billion is passed through Texas. The breakdown is 43% inbound, 29% pass through, 15% outbound, and 13% within.<sup>19</sup>
- Annually, trucks carry 1.5 billion tons of freight worth \$1.2 trillion to, from, and within Texas. Another 195 million tons worth \$664 billion passed through Texas. The breakdown is 64% within, 12% inbound, 13% outbound, and 11% pass through.<sup>20</sup>
- For a state like Texas with a growing population, it is not plausible to remove the equivalent of 59.3% of current highway trips, plus the additional future trips from increased population and increased goods movement through 2030, especially considering the EPA study that indicated TDM type options can reduce approximately 0.2% year (1.6% CO<sub>2</sub> reduction over eight years).

It is also not possible for a State DOT or MPO to achieve the 2030 GHG reduction goal because neither has control over the following measures that will influence future CO<sub>2</sub> reductions:

- Current or future tailpipe emissions standards (these are under the control of USEPA and USDOT-NHTSA);
- Population or population changes within a state;
- Current and future generated upstream emissions;
- Current and future land use (in Texas, predominantly under local government jurisdiction);
- Current and future upstream energy consumption and energy sources;
- Current and future economics that impact personal, public, and governmental policy decisions;
- Legislative authorities to ration highway use;
- Legislative authorities on user fees, pricing, and/or tolling; and
- Other societal and/or technological advances that will change where people choose to live, work, recreate, receive goods, and travel.

It is unrealistic to request the equivalent of a 59.3% reduction in VMT by 2030 for Texas. TxDOT foresees no combination of EVs and VMT reduction that could reasonably or feasibly be used to achieve this goal, without a major disruption to transportation and cascading adverse effects to society and the economy. It would also require actions that are beyond the control of State DOTs and MPOs. FHWA did not provide an example of, or a reference for, how to achieve the 2030 GHG reduction goal or net-zero by 2050 for the NHS. Disruptive and/or transformative change for the NHS would require federal and state legislative action, rather than simply FHWA rulemaking. By not

<sup>17</sup> TxDOT, The Economic Role of Freight in Texas. May 2021, accessed on 08/20/2022 at <https://www.txdot.gov/government/partnerships/freight-planning/economic-role-freight.html>.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

considering the overall practicability of the proposed requirements, the proposed rulemaking is arbitrary and capricious. Additionally, the NPRM is fostering unrealistic public expectations about what State DOTs and MPOs can realistically achieve by 2030 and 2050. This only adds confusion to the ongoing debate over how best to achieve meaningful reductions in GHG emissions in the United States.

Finally, even if FHWA were to clarify that State DOTs and MPOs are not actually required or expected to achieve the 2030 Goal and net-zero by 2050, the proposed rule's requirement of year-after-year declining CO<sub>2</sub> emission targets would also require substantial changes to how the public uses the NHS, much of which is outside of State DOTs' and MPOs' authority, which the NPRM did not seriously consider.

**Comment 5:** It is incumbent upon FHWA to prepare an environmental impact statement (EIS) and regulatory impact analysis (RIA) that takes a hard look at what it would take for the NHS to achieve the 2030 Goal and net-zero by 2050,<sup>21</sup> or even year-after-year reductions in CO<sub>2</sub> emissions from the NHS.

Based upon IPCC statements that “transformative changes” are needed, and since FHWA expects achievement of the 2030 Goal and net-zero by 2050, the NPRM and its associated RIA and National Environmental Policy Act (NEPA) analysis need to fully evaluate the impacts of the action contemplated by the NPRM on the human environment. Clearly, such “transformative changes” cannot be accomplished with an \$11 million-dollar fiscal impact as indicated by the RIA for this NPRM or through a NEPA categorical exclusion (CE).

The RIA does not appropriately evaluate the impacts of the proposed rule if FHWA expects the State DOTs and MPOs targets to help achieve net-zero by 2050.

The NPRM establishes that FHWA's expectation of this performance measure is for the NHS to achieve the 2030 and 2050 Federal policy goals regarding GHG reduction. For example, the NPRM states that proposed new § 490.105(e)(10) “would require declining targets for reductions in tailpipe CO<sub>2</sub> emissions on the NHS that align with the 2030 and net-zero by 2050 emissions reduction targets.” 87 FR 42413. FHWA's expectation is further evidenced by the fact that it has set requirements on the performance targets of a continuous reduction in GHG over time, rather than letting the States and MPOs set their own targets. For instance, without being limited in such a way, a State or MPO could set a target of lowering future projected increases in GHG emissions, rather than a reduction from a base year. Therefore, it is not correct to say that States can set their own targets because FHWA has already established that the targets must be a reduction from a base year and be set to meet its 2030 and 2050 GHG emission reduction goals. By including this specific limitation on performance targets, FHWA makes clear its intention not just to evaluate improving performance of the State DOTs and MPOs but to actually achieve the stated 2030 and 2050 emission reduction goals on the NHS.

The analysis, however, only evaluates the impacts of this proposed rule from the perspective of performance reporting, not from the perspective of achievement of the stated goals. The Breakeven

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<sup>21</sup> Based on the NPRM excerpts cited above in Comment 2, TxDOT assumes that FHWA intends for State DOTs' and MPOs' targets to demonstrate a 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 and net-zero on-road CO<sub>2</sub> emissions by 2050; however, as explained in Comment 2 above, we are requesting clarification on this point.

The RIA, for example, indicates that since the cost of reporting the performance measure is only \$11 million over ten years, the GHG reductions needed to break even are approximately 19,614 to 109,322 tons/year for the whole nation; whereas, the RIA indicates in footnote 33 that, “in 2018, the transportation sector accounted for 1.88 billion tons of CO<sub>2</sub> emissions...”<sup>22</sup>. If the RIA evaluated the actual impacts of achieving the GHG emission goals that FHWA sets in the NPRM, the Breakeven Analysis would include costs to achieve the 1.88 billion tons of CO<sub>2</sub> emission reductions necessary to achieve net-zero by 2050, not just the cost of reporting the performance measure. Therefore, since the RIA only accounts for the costs of the annual reporting of the performance measure and not actually achieving the stated goals of the rule, FHWA is clearly indicating in the RIA that the proposed rule’s only impact is annual reporting, not State DOT or MPO implementation of costly changes necessary to achieve the 2030 and 2050 GHG current Administration priority goals. Since the RIA directly states it is just evaluating the annual reporting costs and because it is not even in the same ballpark with the costs necessary to achieve the 2030 and 2050 GHG current Administration priority goals on the NHS, it does not represent an accurate accounting of the cost or magnitude of this regulation if FHWA intends to achieve the 2030 and 2050 net-zero goals.

As established above, FHWA states that the proposed rule “would require declining targets for reductions in tailpipe CO<sub>2</sub> emissions on the NHS that align with the 2030 and net-zero by 2050 emissions reduction targets.” 87 FR 42413. FHWA will have to choose whether it intends this rule to be nothing more than an annual paperwork exercise or whether the expectation is that State DOTs and MPOs attempt to achieve the 2030 and 2050 goals, because the RIA seems to be saying the former whereas the overall NPRM seems to be saying the latter. If FHWA intends this to be just an annual paperwork exercise, then FHWA should remove all limitations on allowing State DOTs and MPOs to set their own targets because, as stated above, improved performance can be documented without these extreme limitations. On the other hand, if FHWA intends State DOTs and MPOs to take actions to meet the stated 2030 and 2050 goals, then the RIA should be updated to be commensurate with that expectation. That update should include the evaluation of at least:

- The costs associated with a dramatic shift to public transit and/or active transportation, including necessary infrastructure;
- Issues related to increased EV purchases, including supply chain issues and other logistical concerns;
- Possible increases in telecommute options for employees, and other societal, business and personal choice decisions;
- Funding issues beyond what is provided by IIJA;
- Land use changes;
- Freight movement changes; and
- Differences in vehicle and transport needs for rural and urban areas.

Publications thus far do not indicate 2030 and 2050 goals are practicably achievable, so it is incumbent upon FHWA to provide scenarios and paths forward for what can be practicably achieved and by when it can be achieved. Again, even if FHWA clarified that State DOTs and MPOs are not required or expected to achieve the 2030 and 2050 goals, the proposed rule’s requirement of year-after-year

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<sup>22</sup> Summary Report Economic Assessment: National Performance Management Measures; Assessing Performance of the National Highway System, Greenhouse Gas Emissions Measure RIN 2125-AF99 Proposed Rule, June 2022



declining CO<sub>2</sub> emissions targets would also require substantial changes to how the public uses the NHS, which the RIA did not consider.

The proposed rule should have been evaluated using an EIS.

Using information from an email FHWA distributed on November 5, 2021, entitled: “INFORMATION: State On-road Carbon Dioxide (CO<sub>2</sub>) Estimates,” the U.S. annual on-road CO<sub>2</sub> emissions were 1604.136 million metric tons (MMT) in 2019. A reduction of 802.07 MMT would be required by 2030 and another 802.07 MMT reduction would be required by 2050 to meet net-zero emission goals.

Assuming the unlikely scenario of no VMT growth over this time-period throughout the U.S., the estimated “rounded” lifetime CO<sub>2</sub> reductions to the year 2100 (reference year used in other NHTSA rule EISs) would exceed 80,206 MMT.<sup>23</sup> This amount is far greater than the reductions from any previous NHTSA rulemaking for which EISs were prepared, suggesting that this rulemaking should also be the subject of an EIS. Below, TxDOT provides a summary of the lifetime reductions listed in EISs of four previous NHTSA rules in the table below.

**Estimated GHG Reductions for NHTSA Rules**

Vehicle Model Years	Lifetime National GHG Reductions (million metric tons)	Annual GHG Reductions (million metric tons)
2012–2016 (1)	20,700 – 47,300	232–543 (2)
2017–2025 (2)	29,800 – 53,300	NA
2014–2018 (3)	6,700–12,500	11–63
2018–2029 (4)	5,000 – 14,200	NA

Sources: (1) NHTSA (2010). Final Environmental Impact Statement, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2012-2016. Washington, D.C.: National Highway Traffic Safety Administration, (NHTSA, 2010, pp. S-5, S-13, 3-85, 3-109).

(2) NHTSA. (2012). Final Environmental Impact Statement, Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks Model Years 2017-2025. Washington, D.C.: National Highway Traffic Safety, (NHTSA, 2012, pp. S-12, S-43, S-47, 2-41)

(3) NHTSA (2011). Final EIS, Medium and Heavy Duty Vehicles Fuel Efficiency Improvement Program. Washington, D.C.: National Highway Traffic Safety Administration, (NHTSA, 2011, pp. S-6, S-19, S-20, 3-91, 3-114)

(4) NHTSA. (2016). Final EIS, Phase 2 Fuel Efficiency Standards for Medium and Heavy Duty Vehicles. Washington, D.C.: National Highway Traffic Safety Administration. Administration. (NHTSA, 2016, pp. S-7, S-23, S-24, S-26)

To summarize, FHWA has an obligation to evaluate the impacts of the proposed rule both in its RIA and pursuant to an EIS. Instead, FHWA avoided these obligations by suggesting, on one hand, that the proposed rule contains just an annual reporting requirement that does not have significant costs (i.e., \$11 million over ten years according to the RIA); while, on the other hand, in the NPRM itself, indicating both directly and indirectly with its limitations on target setting, that FHWA actually expects achievement of the 2030 and 2050 GHG emission reduction goals on the NHS, or at least expects

<sup>23</sup> This estimate is based upon 1604.136 MMT x 50 years from 2050-2100 for comparison to the NHTSA rule EISs that carried reductions from their rules out to 2100. The amount does not include the annual compounding incremental reductions of 100 MMT needed between 2022-2030 for the 2030 Goal and the 40 MMT annual incremental compounding reductions between 2030-2050 to meet net-zero.



State DOTs and MPOs to attempt to meet them. If FHWA expects State DOTs and MPOs to attempt to achieve these national priority goals on the NHS, or even achieve year-after-year reductions in tailpipe CO<sub>2</sub> emissions, then this would represent a dramatic paradigm shift as detailed in these comments, and FHWA will have to develop a RIA and EIS that is commensurate with this expectation.

**Comment 6: The proposed CO<sub>2</sub> performance measure for the NHS has not been funded by Congress, and therefore would be an unfunded mandate.**

With the IIJA, Congress provided \$6.4 billion for the carbon reduction program (CRP), which provides funds for projects designed to reduce transportation emissions. Estimated CRP funding to Texas is \$641,277,338<sup>24</sup> for five years. If Congress had intended to provide funding for State DOTs and MPOs to achieve the 2030 and 2050 goals on the NHS, or even year-after-year reductions in CO<sub>2</sub> tailpipe emissions, additional funds would have been necessary.

Transformative changes within eight years would require substantially more funding under multiple IIJA program areas, including the CRP. FHWA cannot simply implement goals via rulemaking when additional congressional action is needed first.

**Comment 7: Goods movement within States with national and international ports and distribution centers may be impacted by the proposed application of the CO<sub>2</sub> reduction goals for 2030 and 2050 to the NHS.<sup>25</sup>**

States with major national and/or international ports must respond to the market demand of freight distribution by all modes of transportation, also referred to as goods movement<sup>26</sup> herein, for the growing populations of the U.S. and Texas. For example, in its *National Climate Assessment*, the U.S. Global Change Research Program suggests, “Long-haul freight is expected to increase 40% by 2040, while air and marine transportation will continue to grow in tandem with economic growth and international trade.”<sup>27</sup> If the overarching goal is to reduce CO<sub>2</sub> emissions from the NHS, then FHWA must analyze the impact on the economy as a whole (i.e., job market, consumers, the GDP, etc.). TxDOT has outlined goods movement considerations below:

- Will FHWA expect port states to reduce goods movement through ports and their state?
- Will FHWA expect states to limit new distribution centers and their job opportunities because new distribution centers may increase freight transport and heavy-duty vehicles in the state?
- What happens if the distribution center ultimately reduces transport throughout the nation by providing for shorter trip options while potentially increasing VMT within the state?

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<sup>24</sup> FHWA, 5-year Carbon Reduction Program by State, [https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp\\_5year\\_funding\\_by\\_state.cfm](https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_5year_funding_by_state.cfm), accessed at 10:33 a.m. CdST, 08/01/2022.

<sup>25</sup> Based on the NPRM excerpts cited above in Comment 2, TxDOT assumes that FHWA intends for State DOTs’ and MPOs’ targets to demonstrate a 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 and net-zero on-road CO<sub>2</sub> emissions by 2050; however, as explained in Comment 2 above, we are requesting clarification on this point.

<sup>26</sup> EPA, “Ports Primer: 5.1 Goods Movement and Transportation Planning”. <https://www.epa.gov/community-port-collaboration/ports-primer-51-goods-movement-and-transportation-planning>. Accessed 08, August, 2022.

<sup>27</sup> USGCRP, National Climate Assessment 2018, Chapter 12 Transportation, page 483.

**Comment 8:** If this rule is attempting to achieve the 2030 and 2050 GHG reduction goals on the NHS,<sup>28</sup> or even year-after-year reductions in CO<sub>2</sub> tailpipe emissions from the NHS, TxDOT disagrees with FHWA that it is a non-significant rule.

The NPRM makes it clear both directly (see Comment 3 above) and indirectly with its limitations on target setting (see Comment 4 above) that the intent of this rule is to achieve the 2030 and 2050 GHG reduction goals on the NHS. However, the NPRM, when referencing the RIA for this rule, indicates that this rule's impact will only be \$11 million over ten years. 87 FR 42404. In addition, the NPRM states the proposed rule is not anticipated to be economically significant and would not have an annual effect on the economy of \$100 million or more. 87 FR 42418. FHWA also determined that the rule would not have an impact on small entities. 87 FR 42418.

Stating implementation of the proposed rule would only cost \$11 million over ten years suggests it is a simple paperwork process, rather than a performance measure with stated goals that would require a disruptive or transformative paradigm shift for society and transportation. It suggests a lack of acknowledgment by FHWA on the disruptive and transformative changes that would be needed for the NHS to achieve the 2030 and 2050 GHG reduction goals or even year-after-year reductions in CO<sub>2</sub> emissions from the NHS – or suggests that these are not the true goals of this proposed rule. Simply stated, it is not possible for the rule to achieve major reductions in on-road GHG emissions and yet for this NPRM to be a non-major rule.

FHWA must disclose which of the two it is—a major or non-major rule—and revise the NPRM and supporting analyses accordingly. FHWA stated, “it is anticipated that the measure will influence transportation decisions and result in significant reductions in GHG emissions.” 87 FR 42417. That statement is in direct opposition to this being simply a paperwork exercise as represented by the \$11 million figure. If major reductions are to be achieved, then it is a major rulemaking, and FHWA should prepare an RIA as such with a reasonable figure for State DOTs and MPOs to implement this performance measure.

**Comment 9:** FHWA does not acknowledge that by requiring all States to meet the same CO<sub>2</sub> reduction goals for the NHS in the proposed performance measure,<sup>29</sup> it will have substantially different impacts on some States compared to others.

This proposed GHG performance measure with a single national goal tied to net-zero by 2050, including the interim 2030 reduction target, results in winner and loser States. It would likely cost Texas significantly more to comply than most other States, as evidenced by the following points:

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<sup>28</sup> Based on the NPRM excerpts cited above in Comment 2, TxDOT assumes that FHWA intends for State DOTs' and MPOs' targets to demonstrate a 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 and net-zero on-road CO<sub>2</sub> emissions by 2050; however, as explained in Comment 2 above, we are requesting clarification on this point.

<sup>29</sup> Based on the NPRM excerpts cited above in Comment 2, TxDOT assumes that FHWA intends for State DOTs' and MPOs' targets to demonstrate a 50-52% reduction in on-road CO<sub>2</sub> emissions by 2030 and net-zero on-road CO<sub>2</sub> emissions by 2050; however, as explained in Comment 2 above, we are requesting clarification on this point.

- Texas does not have a fully built out roadway transportation system like smaller and less populated States; therefore, it is still in the process of adding lane mile capacity to address population growth and congestion.
  - The Texas Trunk System (TTS) is a network of highways outside urban centers connecting cities, sea ports, military installations, and international border points of entry through rural Texas. The objective of the TTS is to create a network of rural divided highways (4-lanes or higher) that complements the Interstate Highway System. Currently, the TTS comprises 10,019 miles. Approximately 52% (5,100 miles) of the system has been upgraded to 4-lanes divided or higher, leaving just under 5,000 miles remaining for improvement.
  - Texas ranks 35 in lane miles<sup>30</sup> per VMT.<sup>31</sup>
  - Texas ranks 33 in lane miles per land area.<sup>32</sup>
  - Texas ranks 34 in lane miles per population.<sup>33</sup>
- States that have major national and/or international ports, like Texas, will have more VMT from transport activities.
- Out-of-state vehicles using the roadway contribute to overall fuel usage, thereby affecting the State's ability to achieve the goals of the performance measure.
- Some States have more pass-through travelers than others, including Texas, which has four states bordering it and one international border.
- An approach or measure that limits single occupancy vehicles in any way would have a disproportionate impact in rural areas based on longer distances, sparse development, and less alternative transportation modes, when compared to more urbanized areas.

For purposes of full disclosure, FHWA should reevaluate the proposed rule to consider this aspect of the proposed CO<sub>2</sub> performance measure.

**Comment 10:** If, despite the issues raised throughout these comments, were FHWA to proceed with a final rule, it would need to establish a due date for the first CO<sub>2</sub> emission targets of at least 180 days after the rule becomes effective.

The proposed rule requires States to include targets for the proposed CO<sub>2</sub> performance measure in their State Biennial Performance Report due to FHWA by October 1, 2022; however, the comment period on the NPRM closes after this date, on October 13, 2022. While the NPRM recognizes that the date for States to report State DOT initial targets for the proposed CO<sub>2</sub> performance measures may need be adjusted, and requests comment on what the due date should be in the event a final rule is not effective by October 1, 2022, TxDOT is concerned that the failure of FHWA to recognize

<sup>30</sup> FHWA. Highway Statistics 2020, Chapter 4, Highway Infrastructure, Table HM-48, Federal-Aid Highway Lane – Length – 2020, Lane – Miles by System.

<<https://www.fhwa.dot.gov/policyinformation/statistics/2020/hm81.cfm>>

<sup>31</sup> Bureau of Transportation Statistics. State Highway Travel. < <https://www.bts.gov/browse-statistical-products-and-data/state-transportation-statistics/state-highway-travel>>

<sup>32</sup> U.S. Census Bureau. State Area Measurements and Internal Point Coordinates.

<<https://www.census.gov/geographies/reference-files/2010/geo/state-area.html>>

<sup>33</sup> U.S. Census Bureau. Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia, and Puerto Rico: April 1, 2020 to July 1, 2021.<<https://www2.census.gov/programs-surveys/popest/tables/2020-2021/state/totals/NST-EST2021-POP.xlsx>>

that the deadline for State reporting falls nearly two weeks before the close of the comment period on the proposed rule is indicative of FHWA's intent to finalize the action proposed in the NPRM without fully considering public comments.

Upon close of the comment period for the NPRM on October 13, 2022, FHWA should take some time to adequately consider the public comments and issue any final rule (assuming FHWA does not withdraw the NPRM). If the proposed rule is finalized, State DOTs and MPOs may need time to develop and obtain any required approvals from their governing boards of the CO<sub>2</sub> emissions targets. For example, if changes to state statutes or rules are needed, then additional time would be needed (e.g., the Texas Legislature meets only biennially). After that, State DOTs and MPOs would need additional time to implement any measures needed to attempt to meet the performance measures and obtain the data needed to report progress towards the performance measures to FHWA.

If FHWA does not withdraw the NPRM, it should establish an initial due date for State DOTs and MPOs to include any CO<sub>2</sub> emission reduction targets in its performance measure reporting that is at least 180 days after the date that the final rule takes effect.

**Comment 11:** If, despite the issues raised throughout these comments, FHWA were to proceed with a final rule, FHWA should not increase the reporting and tracking burden on MPOs by requiring additional reporting for MPOs outside the system performance report.

In the NPRM, FHWA requests comment on whether MPOs should be required to provide the metric calculation method and their tailpipe CO<sub>2</sub> emissions to the State DOT outside of the system performance report to provide for more frequent information sharing. TxDOT recommends against such a requirement, as it would unnecessarily increase the reporting and tracking burden on MPOs and State DOTs.

**Comment 12:** Additional requirements cannot be added in a final rule without a new NPRM and RIA (and EIS).

Throughout the NPRM, FHWA requests input on various topics, such as:

- “whether the final rule should contain any other provisions to better support” the national policies of 50-52% below 2005 levels by 2030 and net-zero by 2050;
- “potentially introducing a new requirement for State DOTs and MPOs to establish 8- and 20-year targets at the beginning of each 4-year performance period”; and
- “what changes to the proposed measure or its implementation in TPM could better the impact of transportation decisions on CO<sub>2</sub> emissions, and enable States to achieve tailpipe CO<sub>2</sub> emissions reductions necessary to achieve national targets.”

These and other requests for input suggest that FHWA may be contemplating substantive changes to the requirements placed on State DOTs and MPOs in the final rule as compared to what was proposed in the NPRM. But for that to happen, FHWA would need to issue a new NPRM, RIA, and EIS that evaluates the effects of the proposed changes along with a public comment period because FHWA chose not to issue an EIS or evaluate multiple scenarios as part of the NPRM and RIA that it has published.

## Conclusion

There are several different ways that State DOTs and MPOs can and are reducing GHG emissions. As explained earlier, TxDOT has several activities, programs, and funding initiatives that have the effect of reducing GHG emissions.<sup>34</sup> Additionally, with the Carbon Reduction Program in the IIJA, Congress has made a substantial commitment to reduce GHG emissions from the transportation sector, and it is probable to assume that there will be additional GHG-related initiatives coming from Congress in the future. For all the reasons outlined in the comments above, TxDOT urges FHWA to allow these initiatives to continue, without imposing an additional unreasonable and unauthorized CO<sub>2</sub> performance measure on the NHS administered by State DOTs and MPOs.

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<sup>34</sup> Examples include TxDOT's Recycling and Clean Construction and Operation Program; provision of approximately \$232 million per year in nonattainment areas for federally funded Congestion Mitigation Air Quality (CMAQ) improvement projects (e.g., bicycle and pedestrian facilities); TxDOT planning and designing for bicycles and pedestrian funding programs, including approximately \$172 million per year in transportation alternatives projects and \$20 million per year in pedestrian mobility, accessibility, and safety projects; greening the TxDOT fleet with electric vehicles and alternative-fueled vehicles; and TxDOT's Clean Air Plan, which encourages over 11,000 employees statewide to reduce vehicle emissions.